# Coping Strategies and Post-Traumatic Stress Symptoms in Post-Intensive Care Unit Family Decision-Makers

Authors: Amy B. Petrinec PhD, RN; Polly M. Mazanec PhD, RN; Christopher J. Burant, PhD;

Alan Hoffer MD; Barbara J. Daly PhD, RN

Corresponding author: Amy Petrinec PhD, RN

2760 Hawkesbury Blvd. Hudson, OH 44236 abp19@case.edu

#### SUPPLEMENTAL DIGITAL CONTENT

## **Supplemental Digital Content**

Outline	Page
Table A1. Brief COPE Instrument	3-4
Table A2. Brief COPE Strategy and Sub-scale Reliability	5
Table A3. Comparison Between Study Sample and Attrition Group	6
Table A4. Correlations (Pearson's r) Between Coping Strategies and IES-R Score	7
<b>Table A5</b> . Predictors of Post-traumatic Stress Symptom Severity Using T1 Coping Strategy Scores	8
<b>Table A6</b> . Predictors of Post-traumatic Stress Symptom Severity Using T2 Coping Strategy Scores	9

## Brief COPE Instrument

### Brief COPE Instrument

1. I've been turning to work or other activities to take my mind off things. AVOID, SD  2. I've been concentrating my efforts on doing something about the situation I'm in. PROB, AC  3. I've been saying to myself "this isn't real".  AVOID, D  4. I've been using alcohol or other drugs to make
2. I've been concentrating my efforts on doing something about the situation I'm in. <b>PROB</b> , AC  3. I've been saying to myself "this isn't real".  AVOID, D  4. I've been using alcohol or other drugs to make
something about the situation I'm in. PROB, AC  3. I've been saying to myself "this isn't real".  AVOID, D  4. I've been using alcohol or other drugs to make
3. I've been saying to myself "this isn't real".  AVOID, D  4. I've been using alcohol or other drugs to make
AVOID, D  4. I've been using alcohol or other drugs to make
4. I've been using alcohol or other drugs to make
myself feel better. AVOID, SU
5. I've been getting emotional support from others.  EMOT, ES
6. I've been giving up trying to deal with it.
AVOID, BD
7. I've been taking action to try to make the
situation better. <b>PROB</b> , AC
8. I've been refusing to believe that it has
happened. AVOID, D
9. I've been saying things to let my unpleasant
feelings escape. AVOID, V
10. I've been getting help and advice from other
people. PROB, IS
11. I've been using alcohol or other drugs to help
me get through it. AVOID, SU
12. I've been trying to see it in a different light, to
make it seem more positive. <b>EMOT</b> , PR
13. I've been criticizing myself. AVOID, SB
14. I've been trying to come up with a strategy about what to do. <b>PROB</b> , P
15. I've been getting comfort and understanding from someone. <b>EMOT</b> , ES
16. I've been giving up the attempt to cope.
AVOID, BD
17. I've been looking for something good in what
is happening. EMOT, PR
18. I've been making jokes about it. <b>EMOT</b> , H

19. I've been doing something to think about it	
less, such as going to movies, watching TV,	
reading, daydreaming, sleeping, or shopping.	
AVOID, SD	
20. I've been accepting the reality of the fact that it	
has happened. <b>EMOT</b> , Acc	
21. I've been expressing my negative feelings.	
AVOID, V	
22. I've been trying to find comfort in my religion	
or spiritual beliefs. <b>EMOT</b> , R	
23. I've been trying to get advice or help from	
other people about what to do. <b>PROB</b> , IS	
24. I've been learning to live with it. <b>EMOT</b> , Acc	
25. I've been thinking hard about what steps to	
take. <b>PROB</b> , P	
26. I've been blaming myself for things that	
happened. AVOID, S	
27. I've been praying or meditating. <b>EMOT</b> , R	
28. I've been making fun of the situation. <b>EMOT</b> ,	
Н	
T.	 

#### Note:

PROB = Problem-focused Coping: AC = Active Coping, P = Planning, IS = Instrumental Support EMOT = Emotion-focused Coping: Acc = Acceptance, ES = Emotional Support, ES = Positive Reframing, ES = Religion

**AVOID** = Avoidant Coping: BD = Behavioral Disengagement, D = Denial, SB = Self-Blame, SD = Self-Distraction, SU = Substance Use, V = Venting

Table A2.

Brief Cope Strategy and Subscale Reliability

Brief Cope Strategies	Cronbach's α <sub>a</sub>	Subscale	Cronbach's α <sub>b</sub>
Problem-focused coping	.84	Active coping	.68
		Planning	.73
		Instrumental support	.64
Active emotion-focused coping	. 72	Positive reframing	.64
, ,		Humor	.73
		Religion	.82
		Acceptance,	.57
		Emotional support	.71
Avoidant coping	.75	Self-blame	.69
11.11.11.11.11	.,.	Behavioral disengagement	.65
		Substance use	.90
		Self-distraction	.71
		Denial	.54
		Venting	.50

Note: a = Cooper et al. (2008); b = Carver (1997).

Table A3.

Comparison Between Study Sample and Attrition Group

	Study sample N = 77	Attrition group $N = 30$
Patient characteristics		
	617 (1517)	50.7 (14.09)
Age, years mean (SD)	61.7 (15.17)	59.7 (14.08)
Gender, N (%) Female	27 (49 10/)	10 (62 20/)
Male	37 (48.1%)	19 (63.3%)
	40 (51.9%)	11 (36.7%)
Ethnicity, N (%)	20 (26%)	12 (400/)
African-American	20 (26%)	12 (40%)
White	57 (74%)	18 (60%)
Length of ICU stay, days mean (SD)	13.4 (9.47)	13.5 (6.97)
Length of hospital stay, days mean (SD)	19.4 (11.88)	19.7 (12.31)
Disposition at 30 days post-hospital discharge, N (%)	22 (12 00)	0 (2 ( 70()
Deceased	33 (43.9%)	8 (26.7%)
Alive	44 (56.1%)	22 (73.3%)
Chronically Critically Ill, N (%)	8 (10.4%)	3 (10.0%)
FDM characteristics		
Age, years mean (SD) <sup>a</sup>	57.0 (13.82)	49.5 (13.15)
Gender, N (%)	, ,	
Female	61 (79.2%)	22 (73.3%)
Male	16 (20.8%)	8 (26.7%)
Ethnicity, N (%)	, ,	, ,
African-American	21 (27.4%)	13 (43.3%)
Latino	1 (1.3%)	, ,
White	55 (71.4%)	17 (56.7%)
Relationship to patient, N (%)	,	,
Spouse	36 (46.8%)	10 (33.3%)
Child	22 (28.6%)	13 (43.3%)
Parent	9 (11.7%)	2 (6.7%)
Other	10 (13%)	5 (16.7%)
Previous decision-making experience, yes, N (%)	49 (63.6%)	21 (70.0%)
Living Will, yes, N (%) <sup>b</sup>	27 (35.1%)	5 (16.7%)
Durable power of attorney, yes, N (%) <sup>c</sup>	28 (36.4%)	5 (16.7%)
T1 Coping Strategy, mean, (SD)	- ( ,	(,
Avoidant	1.55 (.34)	1.51 (.37)
Emotion-focused	2.82 (.45)	2.82 (.43)
Problem-focused	3.10 (.74)	3.02 (.72)
110010111 1000000	2.10 (.74)	3.02 (.72)

Note: Chronically Critically III = 21 or more days on the ventilator; SD = standard deviation; T1 = Time 1  $a = [t (105) = -2.55, p = .01]; b = [X^2 (1) = 4.08, p = .04]; c = [X^2 (1) = 4.08, p = .04]$ 

Table A4.

Correlations (Pearson's r) Between Coping Strategies and IES-R Score

	Time 1 Avoidant	Time 1 Emotion- focused	Time 1 Problem- focused	Time 2 Avoidant	Time 2 Emotion- focused	Time 2 Problem- focused
Time 1 Avoidant	1	-	-	-	-	-
Time 1 Emotion- focused	.30 <sub>b</sub>	1	-	-	-	-
Time 1 Problem- focused	.37 <sub>b</sub>	.42 <sub>a</sub>	1	-	-	-
Time 2 Avoidant	.44 <sub>a</sub>	.25 <sub>c</sub>	.08	1	-	-
Time 2 Emotion- focused	.26 <sub>c</sub>	.55 <sub>a</sub>	.25 <sub>c</sub>	.32 <sub>b</sub>	1	-
Time 2 Problem- focused	.32 <sub>b</sub>	.38 <sub>b</sub>	.46 <sub>a</sub>	.19	.48 <sub>a</sub>	1
IES-R Score	.27 <sub>b</sub>	.12	.01	.60 <sub>a</sub>	.23 <sub>c</sub>	.38 <sub>a</sub>

Note: a = (p < .001); b = (p < .01); c = (p < .05)

IES-R = Impact of Event Scale-Revised

Table A5.

Predictors of Post-traumatic Stress Symptom Severity Using T1 Coping Strategy Scores

Model	В	S.E.	β	t	p
Constant	2.58	11.61	_	.22	.83
Avoidant coping T1	9.78	5.26	.21	1.86	.07
Emotion-focused coping T1	3.62	4.07	.10	.90	.37
Problem-focused coping T1	-4.00	2.60	19	-1.54	.13
Relationship child vs spouse	7.15	4.01	.20	1.78	.08
Relationship parent vs spouse	-6.28	5.38	13	-1.17	.25
Relationship other vs spouse	7.32	5.23	.16	1.40	.17
Patient death at 30 days*	12.47	3.40	.39	3.66	.00

Note: Dependent variable = IES-R score; Model summary:  $R^2 = .30$ ; F(7,69) = 4.14, p = .001

 $IES-R = Impact\ of\ Event\ Scale - Revised;\ FDM = Family\ Decision\ Maker;\ S.E. = Standard\ Error;\ T1 = Standard\ Error;\ T2 = Standard\ Error;\ T3 = Standard\ Error;\ T4 = Standard\ Error;\ T5 = Standard\ Error;\ T6 = Standard\ Error;\ T7 = Standard\ Error;\ T8 = Standard\ Error;\ T9 = Stand$ 

Time 1

<sup>\*</sup> p < .05

Table A6.

Predictors of Post-traumatic Stress Symptom Severity Using T2 Coping Strategy Scores

Model	В	S.E.	β	t	p
Constant	-20.83	8.18	_	-2.55	.01
Avoidant coping T2*	16.98	3.61	.49	4.70	.00
Emotion-focused coping T2	-2.25	3.05	08	74	.46
Problem-focused coping T2*	6.26	2.21	.28	2.84	.01
Relationship child vs spouse	5.03	3.25	.14	1.55	.13
Relationship parent vs spouse	-2.74	4.57	06	60	.55
Relationship other vs spouse	8.07	4.40	.17	1.83	.07
Patient death at 30 days	5.55	3.13	.17	1.77	.08

Note: Dependent variable = IES-R score; Model summary:  $R^2 = .50$ ; F(7,69) = 9.90, p < .001

 $IES-R = Impact\ of\ Event\ Scale-Revised;\ FDM = Family\ Decision\ Maker;\ S.E. = Standard\ Error;\ T2 = Standard\ Error;\ T2 = Standard\ Error;\ T3 = Standard\ Error;\ T4 = Standard\ Error;\ T5 = Standard\ Error;\ T6 = Standard\ Error;\ T7 = Standard\ Error;\ T8 = Standard\ Error;\ T9 = Standar$ 

Time 2

<sup>\*</sup> p < .05